

WHAT IS CLAIMED IS:

1. An apparatus for measuring the received power of a reverse link in a mobile communication system, comprising:

5 an unchangeable power measuring block (UPMB) for measuring the received power of the reverse link, accumulating the measured received power, and outputting the accumulated received power as a received power value;

a remover for compensating the received power value using a time constant if the received power value is for a silence period; and

10 a controller for providing a silence period signal to the remover when the silence period starts.

2. The apparatus of claim 1, wherein the remover processes the received power value for the silence period by calculating

15 silence period power value-(effective load at the end of non-silence period) * $\exp(-t/T)$
..... (4)

where T is the time constant of the UPMB, t is time, and the effective load is load imposed by transmitting data on the receiver link from mobile stations (MSs).

20 3. The apparatus of claim 1, wherein the remover bypasses the received power value received from the UPMB, if the silence period signal is not received.

4. An apparatus for measuring the received power of a reverse link in a
25 mobile communication system, comprising:

an unchangeable power measuring block (UPMB) for measuring the received power of the reverse link, accumulating the measured received power, and outputting the accumulated received power as a received power value;

30 a remover for compensating the received power value using a time constant if the received power value is for a silence period;

a bypass line for outputting an input power value;

a switch for switching the received power value received from the UPMB

between the remover and the bypass line according to a switching control signal; and
a controller for generating the switch control signal by which the switch is
connected to the remover for a silence period and to the bypass line for a non-silence
period.

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5. The apparatus of claim 4, wherein the remover processes the received
power value for the silence period by calculating

silence period power value-(effective load at the end of non-silence period) * exp(-t/T)

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..... (5)

where T is the time constant of the UPMB and t is time and the effective load is load
imposed by transmitting data on the receiver link from mobile stations (MSs).

6. A method of measuring the received power of a reverse link in a
15 mobile communication system, comprising the steps of:

measuring the received power of the reverse link, accumulating the measured
received power, and outputting the accumulated received power as a received power
value;

compensating the received power value using a time constant if the received
20 power value is for a silence period and outputting the compensated received power
value as a thermal noise power value for the silence period; and

calculating a riser over thermal (ROT) power value using the received power
value measured for a non-silence period and the thermal noise power value of the
silence period.

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7. The method of claim 6, wherein the compensation is performed by
calculating

silence period power value-(effective load at the end of non-silence period) * exp(-t/T)

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..... (6)

where T is the time constant of an unchangeable power measuring block (UPMB) and t
is time.

8. The method of claim 6, further comprising the step of controlling the load of the reverse link based on the ROT power value.

5 9. The method of claim 6, further comprising:
bypassing the step of compensating the received power using a time constant during a non-silence period.